BWC Research Trust Area (RTA) Guidelines (Draft, March 3, 2006)

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Work in Progress

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1. The Research Thrust Area

1.1 What is an RTA?

The Berkeley Water Center (BWC) will organize its research activities within Research Thrust Areas, or RTAs. Each RTA will focus on a science domain which involves problems or set or problems where complex systems interact and which can uniquely benefit from the Center's interdisciplinary, multi-sectoral approach. RTAs will (a) represent broad arenas of inquiry in which cross-cutting collaboration and cooperation are likely to produce significant progress, (b) reflect the needs and interests of the hydrology community at large, and (c) provide broad outlines rather than narrow definitions for the Center's work. RTAs will be established with ancillary topics and questions designed to help the research community orient their research efforts in support of the RTA efforts and to assist the Center in mapping strategic synergies. None of the RTAs will be permanent, and instead will be rotated in and out of the BWC based on their merits. RTAs will be established for an initial period of no more than 3 years, and can be extended based on progress being made.

RTAs intend to develop and support research opportunities currently unavailable at Berkeley. It is designed as a tool for promoting multidisciplinary research, by bringing together researchers from the entire Berkeley research community, including the Berkeley Lab and Campus, from industry, and from public governmental and non-governmental organizations. At the same time, it is intended to maintain focus, to allow the BWC focus its efforts, and as a vehicle for developing partnerships and for raising funds.

The RTA is not a project: it is a portfolio of projects which eveolves over time: the RTA is a statement of the direction of the thrust, and the RTA content will be provided by researchers executing projects in support of the RTA.

Research in the RTA will be carried out by Campus and Berkeley Lab researchers, researchers from BWC's partners and affiliates, working groups, postdoctoral and Doctoral Fellows. The purpose of the document is to define guidelines for RTA definition and development.

Initial RTAs will be identified through a process of consultation between the Center's directors and science advisors. Future RTAs will be selected based on solicited and unsolicited proposals, in consideration of their significance and potential for promoting the Center's vision and strategic plan, based on criteria stated below, and following consultations with the Center's stakeholders.

1.2 What is the RTA package?

Once an RTA is selected, BWC will solicit proposals for projects to be executed in support of the RTA. BWC funding will be used to support research activities that support the RTA mission, while assigning the highest priority to those activities intended to secure additional funding in support of the RTA (i.e., through proposals, leveraged funding, etc.). RTAs may support different types of studies and activities, such as (but not limited to) development of research proposals, research needed to support proposal development such as preliminary proof of concept; workshops looking at various scientific, social, economic, political issues, leading to the development of significant new knowledge and to material publishable in scientific or otherwise significant and influential venues. BWC is interested to consider a wide range of activities, as long as they convincingly support BWC in its mission.

The activities within the RTA can be carried out through any of the following modes:

1.2.1 Working Groups (WGs): BWC will support small WGs from different disciplines. WGs will be self-convening to work on a specific and mutually-defined problem, project, or product pertinent to the RTA. Priority will be assigned to activities designed to pursue additional funding through extramurally-funded projects.

WGs will be encouraged to interact with and provide guidance to Center's researchers outside of the WG membership. Doctoral and postdoctoral fellows will be encouraged to establish close links with WG members. Arrangements will be made to allow the WGs to carry out and complete their mission.

- 1.2.2 Postdoctoral and Doctoral Fellows: Postdoctoral and Doctoral Fellows will be funded to work with BWC's researchers and working groups, or independently, in support of the BWC's mission. Fellows selection will be made on a competitive basis. Criteria for selection will include appropriateness of the problem, project, or product to the RTA, as well as the ability to take advantage of the Center's unique and collaborative environment. BWC will leverage its resources by providing matching funds.
- 1.2.3 Visiting Research Fellows: Because our model calls for tight collaboration between various sectors and partners, the BWC will award Visiting Research Fellowships to researchers and technical staff from academia, industry and government, and the public non-governmental sectors. At this time, it is anticipated that the fellows will be funded primarily by their home institutions, and that BWC will facilitate their integration into BWC's on-going projects.
- <u>1.2.4 Senior Research Personnel.</u> This category includes full-time, annually re-appointed experienced researchers. It can also include senior research personnel that might get contracted

or subcontracted short or long term by the Center for a specific project or contracts. Such appointments are contingent upon the availability of extramural funding in support of the Center's mission, and are intended to provide depth and continuity to BWC's research efforts.

1.3 RTA Selection Criteria

The primary criteria to be considered while defining and selecting an RTA are as follows:

(1) excellence in Research and Education; (2) Breadth of multidisciplinary and multisectoral participation; (3) Leverage opportunities. Specifically,

- RTAs are established to advance water research by creating research opportunities
 that do not exist (or that are not sufficiently well developed) elsewhere in
 Berkeley (Campus and Lab), through interdisciplinary (and hopefully,
 transdisciplinary) research.
- 2. BWC is committed to exploring new and non-traditional research partnerships through collaboration between the Berkeley research community and non-academic sectors. RTAs are intended to support the Center's principle of diversity of science disciplines and sectors (industry, government, international partners). Such diversity is a key element of our model. This should be reflected in the definition of the various research questions and example projects outlined in the RTA definition.
- 3. In selecting an RTA, BWC will evaluate the potential for obtaining extramural funding. BWC, in principle, is seeking to provide seed funding for the RTA, and to seek additional funding as the RTA progresses.

1.4 Who can propose an RTA?

RTAs can be proposed by members of the Berkeley research community (Lab and Campus), BWC-appointed committees, The BWC leadership, BWC's new and existing strategic partners; members of BWC governing boards (Science Advisory Committee, Advisory Board and Executive Committee).

1.5 When and how often will new RTAs be initiated?

New RTA proposals will be solicited from time to time, as determined by the BWC leadership.

2. The RTA proposal

This Section outlines the RTA proposal and its content.

2.1 Proposal elements

Vision:

- What is the vision for this project?
- What are the outcomes investigators are seeking?
- What impact will this project have?
- How does this project support the mission of the BWC?
- How is Berkeley positioned to excel in this research/collaboration?
- What are our competitors doing in this area of study?
- How will success be measured?

Resources:

- What existing campus or sponsored resources will be leveraged to fulfill academic or research ambitions?
- What resources/investments are required to fulfill research ambitions?
- How (specifically) will resources be utilized?
- What is the time frame required?

2.2 Review of the RTA proposal

The RTA proposal will be reviewed by the BWC's Science Advisory Committee (SAC). They will also be presented to the Advisory Board (AB) for comments. Based on the review comments by both boards, BWC's leadership will make its final selection.

3. Submitting proposals to the RTA

Once an RTA is initiated, BWC will advertise a call for project proposals to be supported by BWC as part of the RTA.

- 3.1 Submitting Proposals to the RTA
- 3.2 Submitting working group proposals to the RTA
- 4. Exceptional Opportunities
- 5. The RTA in progress